TURKEY COVE VEGETATION MANAGEMENT PROJECT
Effects to Threatened, Endangered, and Sensitive (TES) species

Effects to TES species from the proposed management activities have been addressed in the Biological Evaluation/Biological Assessment (BE/BA) for this project. What follows is a synopsis of the effects. For a full discussion of the effects to TES species by taxa, consult the BE/BA for this project in the project record.

Summary of Direct and Indirect Effects to TES Species

Alternative 1

Alternative 1 is the "no-action" proposal.

There will be no direct, indirect, or cumulative effects on any TES species.

Alternative 2

Alternative 2 (the Proposed Action) proposes timber harvest, prescribed burning, and non-native and non-desirable plant control. For a complete discussion of the Proposed Action, see the 'Proposed Action' section for the EA of this project.

As discussed in the BE/BA, there will be no direct, indirect, or cumulative effects from performing these actions on any TES species, beyond those already discussed through previous consultation.

Effects to Locally Rare Species (LR)

Locally rare species are those species determined at the Forest level due to concerns about losing representation of that species on the Forest, even though they are secure range-wide. A step-down process is employed to identify LR species that could be affected by any proposed action. First, the distribution of species on the locally rare list is checked to determine if they occur in the county or watershed where the action is proposed by consulting databases maintained by the Division of Natural Heritage of the Virginia Department of Conservation and Recreation (DNH) (https://vanhde.org/species-search), the Virginia Department of Game and Inland Fisheries (DGIF) (http://vafwis.org/fwis/), NatureServe (http://www.natureserve.org/explorer), and the USDA Natural Resources Conservation Service Plants Database (http://plants.usda.gov). If not, then the LR species were dropped from further consideration. Then, habitat needs were considered; for example, high elevation forest or glade, or spruce/fir forest, or riparian area, or cave. If the habitat of a particular species was not present in the proposed project area or it is a protected habitat type such as a wetland or riparian area, the species was dropped. The remaining 26 species are discussed below.

Aquatic LR Species

Two fish: steelcolor shiner (*Cyprinella whipplei*) and mirror shiner (*Notropis spectrunculus)* and three freshwater mussels: fragile papershell (*Leptodea fragilis)*, black sandshell (*Ligumia recta),* and deertoe (*Truncilla truncata*) can be found downstream from the project areas in the Clinch and

Powell Rivers outside the cumulative effects boundary for this project. There will be no effect to these LR aquatic species.

Terrestrial LR Species

Bats

The proposed project area is outside of known high priority hibernacula for little brown bats in Virginia (VDGIF 2016). There were no little brown bats seen during field visits, but they have been seen in the area in the past. The proposed action will create forested openings, while maintaining 99% of the riparian buffers where these bats are known to forage. This species could benefit from thinning and shelterwood cuts through more efficient foraging due to reduced midstory clutter (Cox et al. 2016). In addition, the Forest standards designed to benefit Indiana bats and northern long-eared bats (see those sections in the BE/BA for this project), will also benefit little brown bats. These standards also meet the best management practices recommended by the State of Virginia for little brown bats (VDGIF 2016). Prescribed fire could destroy some potential snag roosting habitat, but will also create snags through burn mortality and create openings that the bats need to forage. During the dormant season when little brown bats are in their hibernacula (caves, mines, structures), prescribed burning should have no direct effect. Late dormant season burns or growing season burns could drive the bats out of the burn unit, but they should resettle in adjacent, unburned units. Herbicide treatment will favor native trees and plants along roadsides and throughout the forest. Herbicide is either applied as a basal spray on larger trees or a foliar application to small trees and nonnative shrubs and herbaceous species; therefore it is unlikely to affect little brown bats. Overall, the likely outcome is no effect, ranging toward a net beneficial effect for the bats. Therefore, there are no known impacts that should result from implementation of this project, that would adversely impact species viability or result in a trend toward federal listing of this species under the Endangered Species Act.

Birds

There are four LR birds that may be present in the project area: Cooper's hawk (*Accipiter cooperi*) sharp-shinned hawk (*Accipiter striatus*), cerulean warbler (*Dendroica cerulea*), and Swainson's warbler (*Limnothlypis swainsonii*),

Cooper's hawk

Cooper's hawk *Accipiter cooperi* is an inhabitant of deep woods, utilizing thick cover both for nesting and hunting. Openings, especially where hedgerows or windbreaks offer shelter for prey species, may also be used when foraging. The project should create brushy habitat that this species needs for nesting and foraging, and mitigations are in place to avoid active nests; therefore, there should be no effects to this species that would affect continued representation on the George Washington and Jefferson National Forests in Virginia.

Sharp-shinned hawk

Sharp-shinned hawk *Accipiter striatus* is a bird of mixed or coniferous forests, open deciduous woodlands, thickets, and edges. Usually nests in groves of coniferous trees in mixed woods, sometimes in dense deciduous trees or in pure coniferous forest with brush or clearings nearby. In winter found in any kind of forest or brushy area, but tends to avoid open country. The project should create brushy habitat that this species needs for nesting and foraging, and mitigations are in place to avoid active nests; therefore, there should be no effects to this species that would affect continued representation on the George Washington and Jefferson National Forests in Virginia.

cerulean warbler *Dendroica cerulea*

The cerulean warbler breeds in forests with tall deciduous trees and open understory, such as wet bottomlands and dry slopes. There are occurrences of the cerulean warbler throughout the project area. Timber management in areas of mature forests with open understories would reduce nesting habitat for this species, but create some foraging opportunities. Implementation of the Proposed Action or the Alternative will likely reduce the total amount of cerulean warbler habitat in the Project Area. There are occurrences of the cerulean warbler across the Clinch Ranger District. There should be no effects to this species that would affect continued representation on the George Washington and Jefferson National Forests in Virginia

Swainson's warbler *Limnothlypis swainsonii*

Nesting habitat for the Swainson's warbler would be protected by the riparian buffer standards under the Jefferson Forest Plan. No Swainson's warblers were detected during surveys for the project, but suitable habitat is available.

There should be no effects to this species from either action alternatives that would affect continued representation in the George Washington and Jefferson National Forests in Virginia.

Golden eagle *Aquila chrysaetos*

Golden Eagles (*Aquila chrysaetos*) can be found wintering throughout the Appalachian Mountains region, and the George Washington and Jefferson National Forests (Katzner et al. 2012). With large home ranges (5 sq miles or larger), golden eagles move widely, relying on both avian and mammal prey species as well as opportunistic scavenging of carrion for winter food resources (Jachowski et al. 2015, Katzner et al. 2012, Spofford 1971, Singer 1974). The Appalachian Eagle Monitoring Program has documented wintering golden eagles throughout the Virginia and West Virginia mountains, including the Alleghany Plateau, Ridge and Valley, Blue Ridge Mountains, and Cumberland Plateau physiographic regions (Jachowski et al. 2015, Katzner 2012, Katzner pers. Comm. 2017). Thus, wintering golden eagles are assumed to be potentially present throughout the George Washington and Jefferson National Forests. Wintering Golden eagles utilize large trees in forested areas for winter roosting and a variety of forested and open habitat for prey species (both live and carrion) (Jachowski et al. 2015, Katzner et al. 2012). Threats include the loss of suitable winter roosting habitat, loss of habitat supporting prey species, incidental

capture in leg-hold traps and snares, illegal shooting, and incidental poisoning from ingestion of lead shot through carrion (Katzner et al. 2015).

Direct effects

Direct effects of proposed management actions to golden eagles would be minimal. Direct impacts of timber harvesting activities on individual golden eagles would be minimized by conducting harvesting activities outside of the winter season (late November through late February). Direct impacts of prescribed burning on individual golden eagles would be minimized by conducting burning activities outside of the winter season. In addition, golden eagles are highly mobile with a large home range size. Individual golden eagles can easily move out of areas where active management activity, such as timber harvest and prescribed burning, might be occurring. The direct impact of loss of individual trees for roosting due to timber harvest and/or prescribed burning is low, given their large home ranges, highly mobile nature, and a landscape that continues to be mostly forested and consist of mature canopy trees (Jachowski et al. 2015, Katzner et al. 2012, USDA Forest Service 2004, 2014). Direct impacts of maintenance of permanent grassland/shrubland habitat (fields, wildlife openings) would be minimized by conducting maintenance activities (mowing, disking, etc.) outside of the winter season. In addition, the patch size of grassland/shrubland areas are generally small and golden eagles are highly mobile with large home ranges.

Indirect effects

Indirect effects of timber harvesting, prescribed burning, and permanent grassland/shrubland habitat maintenance are expected to provide benefits to wintering golden eagles by providing a mix of habitat types, ages and structures, thus maintaining and improving habitat for a wide variety of avian and mammal prey species (see effects analysis for MIS species)(USDA Forest Service 2004a, 2014a).

Cumulative effects

Cumulative effects of proposed management actions to wintering golden eagles are determined to be beneficial for this species, by minimizing the direct impacts of proposed management activities to individual golden eagles and providing a mix of habitat types, ages and structures for prey species, while maintaining a larger landscape of mostly mature forested areas for winter roosting habitat.

<u>Plants</u>

There were two locally rare plant species that could be present in the project area and possibly effected by the proposed management actions: creeping aster *Eurybia surculosa* and highland dog-

hobble *Leucothoe fontanesiana*. Leucothoe is known to occur in the project area, but was not detected in surveys for this project.

This project will be completed according to Forest Plan direction and standards and though some habitat will be disturbed, many acres will remain in an undisturbed state; therefore, the Proposed Action or the Alternative should not affect continued representation of these species on the George Washington and Jefferson National Forests in Virginia.

Migratory Bird Treaty Act

The protection of migratory birds is regulated by the Migratory Bird Treaty Act (MBTA), Executive Order 13186 and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of Migratory Birds, including Eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 CFR Sec. 10.12 and 16 U.S.C. Sec. 668 (a)). A Memorandum of Understanding (MOU) between the Forest Service and U.S. Fish and Wildlife Service was entered into to comply with the MBTA, BGEPA, and E.O. 13186, and to promote the conservation of and reduce the take of migratory birds (USDA 2016). The MOU strengthens migratory bird conservation by identifying and implementing strategies that promote conservation and avoid or minimize adverse impacts on migratory birds through enhanced collaboration. Specifically, the MOU identifies key principles and directs the Forest Service to (1) focus on bird populations; (2) focus on habitat restoration and enhancement where actions can benefit specific ecosystems and migratory birds dependent on them; (3) recognize that actions taken to benefit some migratory bird populations may adversely affect other migratory bird populations; and (4) recognize that actions that may provide long-term benefits to migratory birds may have short-term impacts on individual birds. The parties agreed that through the NEPA process, the Forest Service will evaluate the effects of agency actions on migratory birds, focusing first on species of management concern along with their priority habitats and key risk factors. For Bald Eagles, the Forest Service will follow the FWS's Bald Eagle Management Guidelines, which can be found at http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf.

The direct, indirect and cumulative effects of proposed actions on migratory bird species of concern, including bald and golden eagles) are analyzed and disclosed for any avian Threatened, Endangered, Sensitive and locally rare species identified to be present, or likely to be present based on suitable habitat, within the projects area. In addition, avian Management Indicator Species (MIS) are designed to represent the suite of migratory bird species that require similar habitat needs on the George Washington and Jefferson National Forests (USDA 2004, 2014). Direct, indirect and cumulative effects of proposed actions on these migratory bird species are analyzed and disclosed for these species through MIS. Effects analyses of proposed actions can

be found in the Biological Environment, Threatened, Endangered, Sensitive and locally rare species section and the Management Indicator Species section of this EA.

Migratory birds inhabit a wide range of forested, non-forested and aquatic habitat types, ages, and structures on the George Washington and Jefferson National Forests (USDA 2004, 2014). As such, all alternatives in this EA would provide suitable habitat for certain species of migratory birds. The George Washington and Jefferson National Forests is a partner in the North American Bird Conservation Initiative, as well as the Appalachian Mountains Joint Venture and is in compliance with Executive Order 13186 (Responsibilities of Federal Agencies to protect migratory birds). All alternatives in this EA are in compliance with the Migratory Bird Treaty Act.

REFERENCES

Dunn, Erica H. and George A. Hall. 2010. Magnolia Warbler (*Setophaga magnolia*), version 2.0. In The Birds of North America (P. G. Rodewald, editor). Cornell Lab of Ornithology, Ithaca, New York, USA

NatureServe. 2016. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available http://www.natureserve.org/explorer.

U.S.D.A. Forest Service. 2004. Final Revised Land and Resource Management Plan, Jefferson National Forest. Roanoke, Virginia.

Virginia Department of Game and Inland Fisheries. 2016. The Virginia Fish and Wildlife Information Service. Website: www.vafwis.org/BOVA

Virginia Department of Conservation and Recreation. 2016. Natural Heritage. Website: https://vanhde.org/species-search